



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,737	06/20/2006	Bodo Odendall	PNL21546	8619
77407	7590	06/10/2009	EXAMINER	
Novak Druce & Quigg LLP			TRAN, DIEM T	
1300 I Street NW				
Suite 1000 West Tower			ART UNIT	PAPER NUMBER
Washington, DC 20005			3748	
			MAIL DATE	DELIVERY MODE
			06/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,737	ODENDALL, BODO	
	Examiner	Art Unit	
	Diem Tran	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-10 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/20/06</u> . | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Claim Objections

Claims 2, 6 are objected to because of the following informalities:

-In claim 2, line 2, --at least one of-- should be inserted after “is” and “and/or” should be changed to --and--.

-In claim 6, lines 5, 7 --at least one of-- should be inserted after “determining” and “and/or” should be changed to --and--. Appropriate corrections are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Bush et al. (US patent 5,842,340).

Regarding claims 1, 2, 6, 7, Bush discloses an exhaust system for an internal combustion engine on a vehicle, having an exhaust catalytic converter and having a probe assembly in the area of the exhaust catalytic converter as a component of a lambda control device by means of which the internal combustion engine may be switched alternately between a lean-fuel operating range and a rich-fuel operating range, as a function of the probe signals detected by means of the probe assembly, wherein characterized in that the probe assembly is in the form of a single lambda probe delivering a constant probe signal, such lambda probe (30) being mounted

downstream from the exhaust catalytic converter (34) and by means of which, in conjunction with the lambda control device, the increase in the amount of oxygen in the exhaust gas flow is determined over the entire period of the lean-fuel operating phase and the decrease in the amount of oxygen in the exhaust gas flow is determined over the entire period of the rich-fuel operating phase, in relation to a specified oxygen amount reference value, an oxygen-dependent threshold switching value being specified which, when reached, causes switching of the lambda control device to the respective other area of operation (see Figure 1, col. 3, lines 28-46, col. 10, lines 46-67, col. 11, lines 1+).

Regarding claims 3, 8, Bush further discloses that the threshold switching value is in the form of the gradients of increase or decrease in the oxygen of the exhaust downstream from the catalytic converter (see col. 3, lines 28-36).

Regarding claims 4, 9, Bush further discloses that threshold switching value is entered in a performance graph of an engine control device (see col. 3, lines 36-46).

Regarding claims 5, 10, Bush further discloses that the oxygen amount reference value is in each instance in the form of the preceding threshold switching value (see col. 3, lines 28-45).

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:30 a.m.- 5:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number

for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).

/Diem Tran/

Diem Tran
Patent Examiner

/Thomas E. Denion/
Supervisory Patent Examiner, Art Unit 3748